

WHAT IS CLAIMED IS:

1. An inference engine configured to rank a plurality of clients using at least one parameter associated with each of the plurality of clients, the engine comprising:
 - a user interface configured to enable a user to select the at least one parameter;
 - a knowledge collection module configured to collect client information based on the at least one parameter; and
 - a calculation module configured to receive the collected information and calculate a client listing using a parameter-based cost function.
2. The inference engine of claim 1 wherein the at least one parameter includes one of manufacturing technology, product type, volume of purchase order, client physical region, design library, tapeout instance, technology file, and chip implementation.
3. The inference engine of claim 2 wherein the manufacturing technology includes 0.13 μm and below, 0.15 μm to 0.25 μm , and 0.25 μm and above.
4. The inference engine of claim 2 wherein the product type includes one of digital, analog, mixed signal, radio frequency (RF), memory, micro-electro-mechanical system (MEMS), and high power.
5. The inference engine of claim 1 wherein the parameter-based cost function comprises the at least one parameter.
6. The inference engine of claim 5 wherein the parameter-based cost function further comprises at least one weighting factor corresponding to the at least one parameter.
7. The inference engine of claim 6 wherein the parameter-based cost function is a linear function including at least one term wherein each term is a product of one of the at least one parameter and one of the at least one weighting factor correspondingly.

8. The inference engine of claim 6 wherein the parameter-based cost function is a non-linear function.
9. The inference engine of claim 1 wherein the parameter-based cost function is built in the calculation module.
10. The inference engine of claim 1 wherein the parameter-based cost function is set up by a user.
11. The inference engine of claim 1 wherein the inference engine is further connected to a virtual fab.
12. The inference engine of claim 11 wherein the knowledge collection module collects the client information from a plurality of client databases in the virtual fab.
13. The inference engine of claim 11 wherein the virtual fab is an entity of network.
14. The inference engine of claim 13 wherein the virtual fab further includes:
 - a plurality of nodes;
 - a manufacturing entity;
 - an engineer entity;
 - a foundry entity;
 - a design library entity; and
 - a plurality of databases.
15. The inference engine of claim 1 wherein the user interface provides an interface of communication between a user and the inference engine.

16. The inference engine of claim 15 wherein the communication comprises:
 - selecting parameters for the cost function;
 - selecting the cost function;
 - selecting a weighting factor for each of the parameters;
 - choosing time scope and region scope; and
 - displaying a result.
17. A method of calculating a client listing using an inference engine having a parameter-based cost function, comprising:
 - selecting parameters related to clients;
 - selecting weighting factors to be associated with respective parameters;
 - collecting knowledge relating to the selected parameters;
 - calculating a parameter-based cost function from the collected knowledge; and
 - providing results, wherein clients are ranked according to values of the parameter-based cost function.
18. The method of claim 17 including setting up a value table for each of the selected parameters.
19. The method of claim 17 wherein collecting knowledge includes tracking client data associated with relevant parameters.
20. The method of claim 17 further comprising setting up parameter-based cost functions.
21. The method of claim 20 wherein setting up parameter-based cost functions includes selecting function type.
22. The method of claim 20 wherein setting up parameter-based cost functions includes defining a function by a user.